

CLAIM AMENDMENTS

1 1. (currently amended) A cutter of a rotary pump for
2 liquids containing solid materials, the cutter having
3 a rotating blade having at least one opening through
4 which the liquid flows ~~, forming that forms a cutting edge and the~~
5 ~~blade is directed with one~~ having a convex end face surrounding the
6 opening;
7 a cutting edge on the blade, bounding the opening, and
8 flush with the convex end face; and toward
9 a nonrotating counter surface that also has at least one
10 opening through which the liquid flows, that aligns with the blade
11 opening on rotation of the blade, characterized in that the end
12 ~~face of the blade that is~~ directed toward and closely juxtaposed
13 with the counter surface is convex, whereas the counter surface
14 convex end face of the blade, and that is complementarily concave
15 to the end face of the blade.

1 2. (currently amended) The cutter according to claim 1
2 ~~characterized in that wherein~~ the curvature of the end face of the
3 ~~blade forms a~~ is part-spherical [[cap]].

1 3. (currently amended) The cutter according to claim 2
2 ~~characterized in that wherein~~ an end of a radius of the curvature
3 of the end face ~~spherical cap~~ is situated on an axis of the pump

4 shaft at the same level as a shaft bearing that is near the pump
5 impeller.

1 4. (currently amended) The cutter according to claim 1
2 ~~characterized in that~~ wherein the rotating blade is attached to
3 the pump impeller at an end that is directed away from the counter
4 surface.

1 5. (currently amended) The cutter according to claim 1
2 ~~characterized in that~~ wherein the counter surface is formed by a
3 nonrotating element that can be fixed in or on the pump housing or
4 that is formed by the pump housing.

1 6. (currently amended) The cutter according to claim 1
2 ~~characterized in that~~ wherein the flow-through opening [[s]]
3 narrows in a flow direction and thus flares in a downstream
4 direction.

1 7. (currently amended) The cutter according to claim 5
2 ~~characterized in that~~ wherein the nonrotating element is mounted in
3 an annular flange that can be attached in or on the pump housing.

1 8. (currently amended) The cutter according to claim 1
2 ~~characterized in that~~ wherein the rotating blade has two to four
3 ~~preferably three~~ sector-shaped openings.

1 9. (currently amended) The cutter according to claim 1,
2 ~~characterized in that~~ wherein the nonrotating element has four to
3 six ~~, preferably five~~ sector-shaped openings.

1 10. (currently amended) The cutter according to claim
2 1, ~~characterized in that~~ wherein there are a plurality of the
3 openings in the blade and in the nonrotating element and the
4 cutting edges of the in particular are formed by radial webs are
5 ~~formed or supported~~ between the openings of the cutter blade.

1 11. (currently amended) The cutter according to claim
2 10, ~~characterized in that it has~~ further comprising
3 an inlet tip between the ~~sector-shaped~~ openings of the
4 nonrotating element.

1 12. (currently amended) The cutter according to claim
2 1, ~~characterized in that~~ wherein the rotating blade has the
3 function of a further axial impeller due to the design of ~~[[the]]~~
4 intake ports that extend at an angle relative to the rotational
5 direction..

1 13. (new) A cutter of a rotary pump for liquids
2 containing solid materials, the cutter having

3 a rotating blade having at least one opening through
4 which the liquid flows and having a convex end face surrounding the
5 opening, the opening flaring in a flow direction of the liquid
6 through the opening;

7 a cutting edge on the blade, bounding the opening, and
8 flush with the convex end face; and

9 a nonrotating counter surface that also has at least one
10 opening through which the liquid flows, that aligns with the blade
11 opening on rotation of the blade, that is directed toward and
12 closely juxtaposed with the convex end face of the blade, and that
13 is complementarily concave to the end face of the blade.